

+

+

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

Application Number	10/659,199
Filing Date	SEPTEMBER 10, 2003
First Named Inventor	STEPHEN M. ALLEN ET AL.
Group Art Unit	1638
Examiner Name	KUBELIK, ANNE R.
Attorney Docket Number	BB1157USCNT

(use as many sheets as necessary)

Sheet	1	of	1
-------	---	----	---

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner
Signature**

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

Please type a plus sign (+) inside this box →



PTO/SB/08B(08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/659,199
Filing Date	SEPTEMBER 10, 2003
First Named Inventor	STEPHEN M. ALLEN ET AL.
Group Art Unit	1638
Examiner Name	KUBLEIK, ANNE R.
Attorney Docket Number	BB1157USCNT

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
ARK	1	IKUO KURIBAYASHI ET AL., Biosci. Biotech. Biochem., vol. 56(3):388-393, 1992, Characterization and Solubilization of beta-Glucan Synthases from Cultured Rice Cells	
	2	KANWARPAL, S. DHUGGA ET AL., Plant Phys., vol. 102(1) suppl:45, 1993, Molecular Characterization of beta-1, 3- glucan Synthase from Pea Tissue	
	3	KANWARPAL, S. DHUGGA ET AL., Plant Phys., vol. 105(1):132, 1994, Molecular Cloning of the Putative Glucan Synthase-II Genes	
	4	KANWARPAL, S. DHUGGA ET AL., Plant Phys., vol. 108(2): suppl:51, 1995, Plant Cell Wall Synthesis: Molecular Cloning of Putative beta-glucan Synthetase Genes from Pea	
	5	ROSEMARIE KELLY ET AL., Journ. of Bacteriology, vol. 178(15):4381-4391, Isolation of a Gene Involved in 1,3- beta-glucan Synthesis in Aspergillus nidulans and Purification of the Corresponding Protein	
	6	TOSHIYUKI MIO ET AL., Journ. of Bacteriology, vol. 179(13):4096-4105, 1997, Cloning of the Candida albicans Homolog of Saccharomyces cerevisiae GSC1/FKS1 and Its Involvement in beta-1,3-Glucan Synthesis	
	7	HEPING CAO ET AL., Physiologia Plantarum, vol. 100(2):400-408, 1997, BT1, a possible adenylate translocator, is developmentally expressed in maize endosperm but not detected in starchy tissues from several other species	
	8	DATABASE EMBL SEQUENCE LIBRARY ACCESSION NO: AF085717, 04-28-1999, CUI, X. ET AL., Cotton CFL1 gene shows homology to the yeast beta-1,3-glycan synthase subunit FKS1	
	9	DATABASE EMBL SEQUENCE LIBRARY ACCESSION NO: AC005108, 08-18-1998, SHINN, P. ET AL., Genomic sequence for Arabidopsis thaliana BAC T25N20	
	10	NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION GENERAL IDENTIFIER NO. 231654, 11/1/1997, SULLIVAN, T.D. ET AL., Analysis of Maize Brittle-1 Alleles and a Defective Suppressor-mutator-induced Mutable Allele	
And	11	NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION GENERAL IDENTIFIER NO. 4138581, 1/7/1999, RINK, U.A. ET AL.	

Examiner
Signature

Date
Considered

2/12/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08B(08-00)

Approved for use through 10/31/2002. OMB 0851-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/659,199
		Filing Date	SEPTEMBER 10, 2003
		First Named Inventor	STEPHEN M. ALLEN ET AL.
		Group Art Unit	1638
		Examiner Name	KUBELIK, ANNE R.
		Attorney Docket Number	BB1157USCNT
Sheet	2	of	3

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	12	NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION GENERAL IDENTIFIER NO. 7484793, 7/23/1999, BEVAN, M. ET AL.	
	13	NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION GENERAL IDENTIFIER NO. 4049342, 8/6/1999, BEVAN, M. ET AL.	
	14	JACK C. SHANNON ET AL., Plant Phys., vol. 117:1235-1252, 1998, Brittle-1, an Adenylate Translocator, Facilitates Transfer of Extraplasmidial Synthesized ADP-Glucose into Amyoplasts of Maize Endosperms	
	15	THOMAS D. SULLIVAN ET AL., Plant Cell, vol. 3:1337-1348, 1991, Analysis of Maize Brittle-1 Alleles and a Defective Suppressor-Mutator-Induced Mutable Allele	
	16	THOMAS D. SULLIVAN ET AL., Planta, vol. 196:477-484, 1995, The maize brittle1 gene encodes amyoplast membrane polypeptides	
	17	ROLAND S. BEFFA ET AL., Plant Cell, vol. 8:1001-1011, 1996, Decreased Susceptibility to Viral Disease of beta-1,3-Glucanase-Deficient Plants Generated by Antisense Transformation	
	18	C. E. FASTNAUGHT ET AL., Crop Sci., vol. 38:941-948, 1998, Genetic and Environmental Variation in beta-Glucan Content and Quality Parameters of Barley for Food	
	19	NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION GENERAL IDENTIFIER NO. 47156872, 8/24/2004, N. J. PATRON ET AL., The lys5 Mutations of Barley Reveal the Nature and Importance of Plastidial ADP-Glc Transporters for Starch Synthesis in Cereal Endosperm	
	20	NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION GENERAL IDENTIFIER NO. 78354955, 10/31/2005, N. J. PATRON ET AL., The lys5 Mutations of Barley Reveal the Nature and Importance of Plastidial ADP-Glc Transporters for Starch Synthesis in Cereal Endosperm	
	21	OLOF EMANUELSSON ET AL., ChloroP, a neural network-based method for predicting chloroplast transit peptides and their cleavage sites, Protein Science, Vol. 8:978-984, 1999	
	22	NICOLA J. PATRON ET AL., The lys5 Mutations of Barley Reveal the Nature and Importance of Plastidial ADP-Glc Transporters for Starch Synthesis in Cereal Endosperm, Plant Physiology, Vol. 135:2088-2097, 2004	

Examiner Signature		Date Considered	2/17/04
--------------------	--	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/08B(08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449/APTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 3

Complete if Known

Application Number	10/659,199
Filing Date	SEPTEMBER 10, 2003
First Named Inventor	STEPHEN M. ALLEN ET AL.
Group Art Unit	1638
Examiner Name	KUBELIK, ANNE R.
Attorney Docket Number	BB1157USCNT

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>ASL</i>	23	JACK C. SHANNON ET AL., Brittle-1, an Adenylate Translocator, Facilitates Transfer of Extraplasmidial Synthesized ADP-Glucose into Amyoplasts of Maize Endosperms, Plant Physiol., Vol. 117:1235-1252, 1998	
	24	THOMAS D. SULLIVAN ET AL., Analysis of Maize Brittle-1 Alleles and a Defective Suppressor-Mutator-Induced Mutable Allele, The Plant Cell, Vol. 3:1337-1348, 1991	
	25	JACK KYTE ET AL., A Simple Method for Displaying the Hydropathic Character of a Protein, J. Mol. Biol., Vol. 157:105-132, 1982	
	26	THOMAS D. SULLIVAN ET AL., Plant Cell, vol. 3:1337-1348, 1991, Analysis of Maize Brittle-1 Alleles and a Defective Suppressor-Mutator-Induced Mutable Allele	
<i>ASL</i>	27	F. PALMIERI, Mitochondrial carrier proteins, FEBS Letters, Vol. 348:48-54, 1994	

Examiner Signature

Date Considered

2/17/04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.